

REMARKS

Applicant thanks the Examiner for withdrawing the rejections of record in the January 9, 2004 Final Office Action.

Status of the Application

Claims 1-6, 10-15 and 19-49 are all the claims pending in the Application, as claims 47-49 are hereby added. Claims 1, 3, 4, 10, 12, 13, 19, 23-34 and 44-46 stand rejected.

Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 35-43 are allowed.

Applicant thanks the Examiner for indicating that claims 2, 5, 6, 11, 14, 15 and 20-22 would be allowed if rewritten in independent form. However, Applicant respectfully requests that the Examiner hold in abeyance such rewriting until the Examiner has had an opportunity to reconsider (and withdraw) the prior art rejection of the other claims.

Additionally, as claim 34 is dependent from claim 21, which is indicated as being allowable, Applicant respectfully submits that claim 34 should also be indicated as allowable.

Obviousness Rejection

The Examiner has rejected, under 35 U.S.C. § 103(a): (1) claims 1, 10, 19 and 44-46 as being unpatentable over *Koike* (US 5,550,647; hereinafter “*Koike*”) in view of *Mitsuse et al.* (US 5,325,153; hereinafter “*Mitsuse*”) and further in view of *Kuwata et al.* (US 6,055,071; hereinafter “*Kuwata*”) or *Satou et al.* (US 5,838,465; hereinafter “*Satou*”); (2) claims 1, 10, 19, 23, 25-27, 29-31, 33, 34 and 44-46 as being unpatentable over *Yamakawa* (US 6,014,462; hereinafter “*Yamakawa*”) in view of *Matsuse* and further in view of *Kuwata* or *Satou*; (3) claims 3, 4, 12, 13, 24, 28 and 32 as being unpatentable over *Koike* or *Yamakawa* in view of *Mitsuse*

and further in view of *Kuwata* or *Satou*, and further in view of what the Examiner has called “*Applicant’s Admitted Prior Art*” (hereinafter “*APA*”); and (4) claims 24, 28 and 32 as being unpatentable over *Yamakawa* view of *Mitsuse* and further in view of *Kuwata* or *Satou*, and further in view of the *APA*. These rejections are respectfully traversed.

Independent Claims 1, 10, 19, 44, 45 and 46

The Examiner takes the position that a combination of *Koike*, *Mitsuse* and either *Kuwata* or *Satou* teach or suggest all of the features of independent claims 1, 10, 19, 44, 45 and 46.¹

The Examiner alleges that *Koike* discloses many of the features of the independent claims, but concedes that *Koike* fails to teach or suggest “tone correction based on gamma characteristic information having a higher resolution value than the original input resolution” (O.A., pg. 2). Applicants agree the *Koike* is deficient at least in this regard.

In an attempt to show that such a feature was known, the Examiner applies *Mitsuse*, alleging: (1) that it “discloses (column 10, line 67 - column 11, line 6) the obtaining of higher resolution gamma characteristic information and the use of this higher resolution information to create a more accurate conversion table” (O.A., pg. 3); and (2) that combining these references would have been “an expedient obvious to one of ordinary skill in the art” (O.A., pg. 3).

However, even if it would have somehow been possible to modify *Koike* in view of *Mitsuse* (and/or *Kuwata* or *Satou*) as the Examiner has alleged, Applicants respectfully submit that even the resultant combination would fail to teach or suggest all the features of independent claims 1, 10, 19, 44, 45 and 46.

Specifically, none of the applied references teach or suggest that “the tone correction is based on gamma characteristics, of the image forming apparatus, having a value resolution higher than a value resolution of the input tone level data,” as recited in independent claims 1, 10 and 19, or that “the tone correction information [has] a second value resolution higher than the first value resolution” of the input tone level data, as recited in independent claims 44-46.

As conceded by the Examiner, *Koike* is silent regarding these features.

Further, *Matsuse* is also deficient in this regard. *Matsuse* is directed to density measuring units in a printing apparatus, and discloses (in col. 4, lines 47-55) that, in the prior art density measuring unit 43 (see FIG. 6):

there is a problem that dynamic ranges of the characteristic curves 8a of the primary colors and a dynamic range of the achromatic color is smaller than the case that densities of primary colors and the density of achromatic color would be detected by different circuits. Therefore, the resolution of density is low, so that fine density control was impossible and the picture quality was not suitably improved.

Matsuse then discloses an improved density measuring unit 45 (see FIG. 1). After discussing the structure of density measuring unit 45 in detail (col. 6, line 24 - col. 10, line 66), *Matsuse* concludes, in its penultimate paragraph (see col. 10, line 67 - col. 11, line 6), that:

The control unit 50 can obtain a higher resolution data information of γ characteristics of primary and achromatic colors. Therefore, the control unit 50 can produce a more accurate conversion table for compensating characteristics of formation of images. That is, the control unit 50 changes the charging voltages of the photosensitive member 1, toners, and the like for compensation of γ characteristics.

¹ The Examiner alleges that *Kuwata* or *Satou* disclose “the correction of color tone with respect to rewritten calibration data.” However, Applicants note that this feature is not now recited in the independent claims.

As noted above, the Examiner alleges that this conclusory paragraph discloses “the obtaining of higher resolution gamma characteristic information and the use of this higher resolution information to create a more accurate conversion table.”

However, Applicant respectfully submits that the “higher resolution information” that the Examiner cites is relative only to the prior art density measuring unit of Mitsuse. In other words, *Mitsuse* simply discloses that prior art density measuring units provide lower resolution and are deficient, and that the inventive density measuring unit provides “higher resolution,” and is therefore better. There is no teaching or suggestion that this “higher resolution” of the density measuring unit 45 is either of a higher or lower resolution than a resolution of any input tone level data in Mitsuse.

Thus, this simple disclosure cannot reasonably be read as teaching or suggesting the claimed relationship where the tone correction has a “value resolution higher” than a value resolution of the input tone level data, as recited in independent claims 1, 10, 19, 44, 45 and 46.

Kuwata or *Satou* are also silent regarding the above features.

Accordingly, Applicant respectfully submits that independent claims 1, 10, 19, 44, 45 and 46 are patentable over the applied references. Further, Applicants respectfully submit that rejected dependent claims 3, 4, 12, 13 and 23-34 are allowable, *at least* by virtue of their dependency.

Thus, Applicant respectfully requests that the Examiner withdraw this rejection.

New Claims

New dependent claims 47-49 are hereby added. Claims 47-49 are fully supported by at least pages 8-10 of the Application as filed, and are respectfully submitted to be allowable both by virtue of their dependency and by virtue of the features recited therein.


Conclusion

In view of the foregoing, it is respectfully submitted that claims 1-6, 10-15 and 19-49 are allowable. Thus, it is respectfully submitted that the application now is in condition for allowance with all of the claims 1-6, 10-15 and 19-49.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Please charge any fees which may be required to maintain the pendency of this application, except for the Issue Fee, to our Deposit Account No. 19-4880.

Respectfully submitted,


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